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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William Ho Chang

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EXAMINER

BHATIA, AJAY M

ART UNIT

PAPER NUMBER

2445

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/016,223	<b>Applicant(s)</b> CHANG ET AL.	
	<b>Examiner</b> AJAY BHATIA	<b>Art Unit</b> 2445	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-21,23-25,28-31,33,35-41,43-49,51,53-66,69-78,80-90,92,93 and 95-113 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1,3-9,11-21,23-25,28-31,33,35-41,43-49,51,53-66,69-78,80-90,92,93,95 and 96-113.

***Response to Arguments***

Applicant's arguments with respect to claim 1,3-9,11-21,23-25,28-31,33,35-41,43-49,51,53-66,69-78,80-90,92,93 and 95-113 have been considered but are moot in view of the new ground(s) of rejection.

***Priority***

Applicant is relying upon a provisional application to overcome the prior art and therefore applicant is required to map all of the claim limitations to the support found in the provisional application.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,3-9,11-21,23-25,28-31,33,35-41,43-49,51,53-66,69-78,80-90,92,93 and 95-113 recites the limitation "each other" in line 4. There is insufficient antecedent basis for this limitation in the claim. It is unclear which other the feature is referring to since there are multiple preceding devices.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-5, 7-9,11-21,23-25,29-30,33,35-37, 39-41,43-49,51,53-55, 58-66,69-74, 76-78,80-84, 86-90,92,93 and 95-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson et al. (United States Patent Application Publication 2002/0012329, examiner has cited applicable provisional application in the 892, which are accessible through public pair), in view of "A Comparison of Service Discovery Protocols and Implementation of the Service Location Protocol" (referred to as ACSDPI).

For claim 1, Atkinson-ACSDPI teaches, a data output method for rendering at one or more output devices data content accessed from a wireless mobile information apparatus, the one or more output devices and the wireless mobile information apparatus being in wireless communication with each other, the method comprising:

establishing at the wireless mobile information apparatus a radio wireless communication channel directly between the wireless mobile information apparatus and the one or more output devices; (Atkinson, paragraph 29, Bluetooth, 802.11, etc...)

receiving at the wireless mobile information apparatus over the radio frequency wireless communication channel one or more device-dependent attributes corresponding to the one or more output devices; (Atkinson, paragraph 86, discovery manager)

selecting at the wireless mobile information apparatus a selected output device from the one or more output devices; (Atkinson, paragraph 102, choose)

generating device dependent output data from the data content for rendering at the selected output device, the device-dependent output being based at least in part on the one or more attributes relating to the selected output device; (Atkinson, paragraph 102, driver, fully formatted)

and delivering the device-dependent output over the radio frequency wireless communication channel directly from the wireless mobile information apparatus to the selected output device for rendering of the data content. (Atkinson, paragraph 102, Bluetooth)

Atkinson fails to clearly show support in the provisional applications for paragraph 102,

ACSDPI teaches, a data output method for rendering at one or more output devices data content accessed from a wireless mobile information apparatus, the one or more output devices and the wireless mobile information apparatus being in wireless communication with each other, the method comprising:

establishing at the wireless mobile information apparatus a radio frequency wireless communication channel directly between the wireless mobile information apparatus and the one or more output devices; (ACSDPI, Page 5 paragraph 4, Page 6, paragraph 1, 6, Bluetooth ad hoc)

receiving at the wireless mobile information apparatus over the radio frequency wireless communication channel one or more device-dependent attributes corresponding to the one or more output devices; (ACSDPI, Page 5 paragraph 5-8, locate service by type, printer, search, choose)

selecting at the wireless mobile information apparatus a selected output device from the one or more output devices; (ACSDPI, Page 5 paragraph 8, choose, Page 6 paragraph 1, utilize)

generating a device-dependent output from the data content for rendering at the selected output device, the device-dependent output being based at least in part on the one or more attributes corresponding to the selected output device; (ACSDPI, Page 5 paragraph 5-8, locate, search, choose, Page 6 paragraph 1, 5, 6, utilize, kinds of equipment, ad hoc, link)

and delivering the device-dependent output over the radio frequency wireless communication channel directly from the wireless mobile information apparatus to the selected output device for rendering of the data content. (ACSDPI, Page 5 paragraph 5-8, choose, Page 6 paragraph 1, 5, 6, utilize)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Atkinson with that of ACSDPI, by using the protocols of ACSDPI with those of Atkinson, because it allows the Atkinson to be compatible with well known discovery protocols allowing more sure to be able to access and use the system.

For claim 3, Atkinson-ACSDPI teaches, the method of claim 1 in which the data content resides in the wireless mobile information apparatus. (Atkinson, paragraph 102, first website) (ACSDPI, Page 5 paragraph 4, PDA) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 3.

For claim 4, Atkinson-ACSDPI teaches, the method of claim 1 further including obtaining the data content from a data source distinct from the wireless mobile information apparatus. (Atkinson, paragraph 102, website) (ACSDPI, Page 5 paragraph 4, PDA, Page 6 paragraph 6, Web search) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 4.

For claim 5, Atkinson-ACSDPI teaches, the method of claim 1 further comprising obtaining authentication information from the wireless mobile information apparatus and authenticating permission for the wireless mobile information apparatus to access the selected output device. (Atkinson, paragraph 60, pin)

For claim 7, Atkinson-ACSDPI teaches, the method of claim 1 further including the wireless mobile information apparatus discovering the one or more output devices as being available to render data content. (Atkinson, paragraph 87, discovery) (ACSDPI, Page 5 paragraph 5-8, printer) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 7.

For claim 8, Atkinson-ACSDPI teaches, the method of claim 7 in which discovering the one or more output devices includes the wireless mobile information apparatus broadcasting a discovery request and awaiting one or more responses from the one or more output devices. (Atkinson, paragraph 87, period) (ACSDPI, Page 5 paragraph 5, 6, discovery) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 8.

For claim 9, Atkinson-ACSDPI teaches, the method of claim 7 in which discovering the one or more output devices includes the one or more output devices broadcasting its or their availability. (Atkinson, paragraphs 92-96, devices) (ACSDPI, Page 5 paragraph 5, 6, discovery)

For claim 11, Atkinson-ACSDPI teaches, the method of claim 7 in which the discovering of one or more output devices involves determining if the one or more output devices satisfy one or more output requirements. (Atkinson, paragraph 102, attributes) (ACSDPI, Page 5 paragraph 5, 6, choose the right service) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 11.

For claim 12, Atkinson-ACSDPI teaches, the method of claim 11 in which the one or more output requirements include one or more of price, quality of service, and availability. (Atkinson, paragraph 102, color)

For claim 13, Atkinson-ACSDPI teaches, the method of claim 7 in which the wireless mobile information apparatus discovers the one or more output devices with wireless communication. (Atkinson, paragraph 87, discovery) (ACSDPI, Page 6 paragraph 5, 6, Bluetooth) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 13.

For claim 14, Atkinson-ACSDPI teaches, the method of claim 1 in which the attributes corresponding to the one or more output devices include information characterizing the one or more output devices. (Atkinson, paragraph 101, profile) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 14.

For claim 15, Atkinson-ACSDPI teaches, the method of claim 14 in which the information characterizing the one or more output devices includes one or more of a make identifier, a model identifier, an output device type identifier, an output data format identifier, an output device identifier, security information, or authentication information, individually or in combination. (Atkinson, paragraph 101, profile, paragraph 68, vendor commands) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 15.

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For claim 16, Atkinson-ACSDPI teaches, the method of claim 1 in which the attributes corresponding to the one or more output devices include information characterizing output services provided by the one or more output devices. (Atkinson, paragraph 101, profile) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 16.

For claim 17, Atkinson-ACSDPI teaches, the method of claim 16 in which the information characterizing the output services includes one or more of a quality of service indicator, an availability of service indicator and a service fee indicator. (Atkinson, paragraph 101, profile, 102, color)

For claim 18, Atkinson-ACSDPI teaches, the method of claim 1 in which the selecting of the one or more output devices includes input from a user. (Atkinson, paragraph 102, print) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 18.

For claim 19, Atkinson-ACSDPI teaches, the method of claim 1 in which the selecting of the one or more output devices is based at least in part upon a predetermined default criterion that is stored in the wireless mobile information apparatus. (Atkinson, paragraph 85, previous device)

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For claim 20, Atkinson-ACSDPI teaches, the method of claim 1 further including receiving at the wireless mobile information apparatus via the radio wireless communication channel components enabling the data content to be rendered by the selected one or more output devices. (Atkinson, paragraph 102, driver) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 20.

For claim 21, Atkinson-ACSDPI teaches, the method of claim 20 in which the components include software code or a software application. (Atkinson, paragraph 98, JSE2)

For claim 23, Atkinson-ACSDPI teaches, the method of claim 20 in which the components correspond to one or more of a device driver, a printer driver, an output driver, an audio driver, a display driver, and a user interface, individually or in combination. (Atkinson, paragraph 102, driver, fully formatted) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 23.

For claim 24, Atkinson-ACSDPI teaches, the method of claim 1 in which the wireless mobile information apparatus includes a digital camera, an Internet-enabled cellular phone, a smart phone, an Internet appliance, or a personal computer. (Atkinson,

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paragraph 102, phone) (ACSDPI, Page 5 paragraph 4, PDA) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 24.

For claim 25, Atkinson-ACSDPI teaches, the method of claim 1 in which the one or more output devices include one or more of a printing device, a display device, a projection device, and an audio output device. (Atkinson, paragraph 102, printer) (ACSDPI, Page 5 paragraph 5, 6, 8, printer, characteristics) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 25.

For claim 29, Atkinson-ACSDPI teaches, the method of claim 1 further including delivering the output data to an output controller associated with the selected output device. (Atkinson, paragraph 98, server) (ACSDPI, Page 7 paragraph 6, Directory Agent) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 29.

For claim 30, Atkinson-ACSDPI teaches, the method of claim 29 in which the output controller is one of a server, an external controller and a data access point. (Atkinson, paragraph 98, server) (ACSDPI, Page 7 paragraph 6, Directory Agent) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 30.

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For claim 31, Atkinson-ACSDPI teaches, the method of claim 29 further including performing image processing on the device-dependent output at the selected output device. (Atkinson, paragraph 102, print image) (ACSDPI, Page 5 paragraph 5, 8, printer, Page 6, paragraph 1, utilize) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 31.

For claim 98, Atkinson-ACSDPI teaches, the method of claim 1 in which the wireless communication channel is compatible with a Bluetooth wireless protocol or a IEEE 802.11 protocol. (Atkinson, paragraph 29) (ACSDPI, Page 6 paragraph 6, Bluetooth) The same motivation that was utilized in the rejection of claim 1, applies equally as well to claim 98.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 28, 38, 56, 57, 75 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson in view of Naito (United States Patent 6,628,417).

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For claim 6, Atkinson-ACSDPI fails to disclose the method of claim 1 further including obtaining from the wireless mobile information apparatus payment information to administer payment for the rendering provided by the selected output device.

Naito teaches, the method of claim 1 further including obtaining from the wireless mobile information apparatus payment information to administer payment for the rendering provided by the selected output device. (Naito, Col. 16 lines 25-45, fee)

Naito and Atkinson-ACSDPI are both in the filed of communications to a printer (Atkinson, paragraph 101)

Naito and Atkinson- ACSDPI are compatible (Naito, paragraph 31)

I It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine Atkinson-ACSDPI and Naito, by adding Naito system of charging to that of Atkinson-ACSDPI discovery and utilize system, because Naito has the added improvement of collecting money for services. (Naito, Col. 16 lines 25-45, fee)

For claim 28 Atkinson-ACSDPI fails to clearly disclose, the method of claim 1 in which generating device-dependent output data includes at least partial raster image processing of the data content.

Naito teaches, the method of claim 1 in which generating device-dependent output data includes at least partial raster image processing of the data content. (Naito, Col. 32 lines 20-25, JPEG)

Naito and Atkinson-ACSDPI are both in the filed of communications to a printer (Atkinson, paragraph 101)

Naito and Atkinson-ACSDPI are compatible (Naito, paragraph 31)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine Atkinson-ACSDPI and Naito, by adding Naito system of charging to that of Atkinson-ACSDPI discovery and utilize system, because Naito has the added improvement of collecting money for services. (Naito, Col. 16 lines 25-45, fee)

Claim(s) 38, 56, 57, 75 and 85 are directed to the same invent as described in claim(s) 6 and 28. Therefore, the supporting rationale of the rejection to claim(s) 6 and 28 applies equally as well to claim(s) 38, 56, 57, 75 and 85.

### ***Conclusion***

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached Notice of references cited (if appropriate).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJAY BHATIA whose telephone number is (571)272-3906. The examiner can normally be reached on M, T, H, F 9:00-3:30, Also please fax interview requests to 571-273-3906.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571)272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ajay Bhatia/

Examiner, Art Unit 2445